

# Fact Sheet



## For Draft/Proposed Renewal Permitting Action Under 45CSR30 and Title V of the Clean Air Act

Permit Number: **R30-07300022-2014**

Application Received: **March 7, 2014**

Plant Identification Number: **073-00022**

Permittee: **Pleasants Energy, LLC**

Mailing Address: **10319 South Pleasants Highway, St. Marys, WV 26170**

*Revised: N/A*

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Physical Location:	Waverly, Pleasants County, West Virginia
UTM Coordinates:	468.629 km Easting • 4353.573 km Northing • Zone 17
Directions:	Site is located on the eastern side of State Route 2 in Pleasants County, approximately 1 mile east of Waverly

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### Facility Description

The facility is a 300 MW simple cycle electric generating peaking station operating under SIC 4911. The Pleasants Energy Station includes two General Electric (GE) 7FA class simple cycle combustion turbines, each nominally rated at 167.8 MW (while firing natural gas at an ambient temperature of 59° F and 60% relative humidity) including generator, exciter, and associated auxiliary mechanical and electrical systems. The primary fuel is natural gas. Low sulfur distillate fuel oil is utilized as a backup fuel.

Each gas turbine includes an advanced firing combustion turbine air compressor section, gas combustion system with advanced dry low NO<sub>x</sub> control, power turbine, and a 60-Hz, 18 (kV) generator.

## Emissions Summary

<b>Plantwide Emissions Summary [Tons per Year]</b>		
<b>Regulated Pollutants</b>	<b>Potential Emissions</b>	<b>2013 Actual Emissions</b>
Carbon Monoxide (CO)	116	0.32
Nitrogen Oxides (NO <sub>x</sub> )	241	22.51
Particulate Matter (PM <sub>2.5</sub> )	75	2.36
Particulate Matter (PM <sub>10</sub> )	75	2.36
Total Particulate Matter (TSP)	75	2.36
Sulfur Dioxide (SO <sub>2</sub> )	53	0.78
Volatile Organic Compounds (VOC)	12	0.54
<i>PM<sub>10</sub> is a component of TSP.</i>		
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>	<b>2013 Actual Emissions</b>
Total HAPs ( <i>All individual HAPs have a PTE &lt; 10 tpy</i> )	11.828	0.551

*Some of the above HAPs may be counted as PM or VOCs.*

## Title V Program Applicability Basis

This facility has the potential to emit 241 tons per year (TPY) of NO<sub>x</sub> and 116 tons per year of CO. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, Pleasants Energy, LLC is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

## Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

This facility has been found to be subject to the following applicable rules:

### Federal and State:

45CSR6	Open burning prohibited.
45CSR11	Standby plans for emergency episodes.
45CSR13	Permits For Construction, Modification, Relocation And Operation Of Stationary Sources Of Air Pollutants, Notification Requirements, Administrative Updates, Temporary Permits, General Permits, And Procedures For Evaluation
45CSR16	Standards of Performance for New Stationary Sources Pursuant to 40CFR60.
45CSR30	Operating permit requirement.

45CSR33	Acid Rain Provisions and Permits
45CSR39	Control Of Annual Nitrogen Oxides Emissions
45CSR40	Control Of Ozone Season Nitrogen Oxides Emissions
45CSR41	Control Of Annual Sulfur Dioxide Emissions
WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent information such as annual emission inventory reporting.
40 C.F.R. 60 Subpart GG	Standards of Performance for Stationary Gas Turbines.
40 C.F.R. Part 61	Asbestos inspection and removal
40 C.F.R. Part 72	Permits Regulation
40 C.F.R. Part 73	Sulfur Dioxide Allowance System Permits Regulation
40 C.F.R. Part 74	Sulfur Dioxide Opt-ins
40 C.F.R. Part 75	Continuous Emissions Monitoring
40 C.F.R. Part 76	Nitrogen Oxides Reduction Program
40 C.F.R. Part 77	Excess Emissions
40 C.F.R. Part 78	Appeals Procedure for Acid Rain Program
40 C.F.R. Part 82, Subpart F	Ozone depleting substances

State Only:

45CSR4	No objectionable odors.
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Each State and Federally-enforceable condition of the Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

### Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit ( <i>if any</i> )
R13-2373A	January 19, 2006	
Acid Rain Permit	December 21, 2010	
CAIR Permit	March 22, 2007	

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table," which may be downloaded from DAQ's website.

### Determinations and Justifications

This is a renewal of the Title V permit which was issued on September 17, 2009. Substantial changes to the most recent version of the Title V Permit consist of the following:

**1) Title V Boilerplate changes**

- Condition 2.1.4. – The word “monthly” was added to the definition of “rolling yearly total.”
  - Condition 3.3.1. – Subsection “d” was added to this condition. Also section 14 of WV Code §§22-5-4 (a) was added in the citation of authority.
  - Conditions 3.5.3. and 3.5.5. - These conditions were revised to require electronic submittal of the annual certification to USEPA. The certification shall now only be submitted to the USEPA by e-mail. Also the USEPA address and office name were updated in condition 3.5.3.
- 2) **Condition 1.1.** – The “Year Installed” dates for the portable gasoline storage tank “T3” and the portable diesel storage tank “T4” were incorrectly listed as 2001. These dates should have been 2002 and therefore have been corrected in this renewal.
- 3) **Conditions 3.1.9., 3.1.10., 3.1.11.** – Since the Acid Rain permit has been removed from Appendix A (see item 6 below) the CAIR Permit application is now in Appendix A and therefore Appendix B has been changed to Appendix A in these conditions.
- 4) **Condition 4.1.1.** – The “shutdown” definition in this condition has been revised to remove “*when operating on natural gas*” in order to clarify that the shutdown definition includes operating on fuel oil. Once the shutdown is initiated the units are shut down automatically regardless of which fuel is being combusted.
- 5) **Condition 4.1.9.** – The citation of authority for 40 CFR §60.332(b)(1) was incorrect in that there is no subsection (1). Therefore it has been corrected to remove “(1)” from the citation.
- 6) **Condition 4.1.11.** – Since the Acid Rain permit does not need to be included in the Title V permit it has been removed from Appendix A of the renewal permit. Condition 4.1.11.a. has been revised to delete the language stating that the Acid Rain permit is included in Appendix A. The requirement to hold an Acid Rain permit will remain in section 4.1.11. of the Title V permit. The Acid Rain Permit requirements are considered to be incorporated by reference.
- 7) **Condition 4.2.3.** – The citation of authority for Subpart GG has been revised from 40 CFR §60.334(b)(2) to 40 CFR §60.334(h)(4) to correspond with the newer version (2/24/2006) of Subpart GG.

**Non-Applicability Determinations**

The following requirements have been determined not to be applicable to the subject facility due to the following:

- a. **45CSR2 - To Prevent and Control Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers.** According to permit #R13-2373A the natural gas turbines (GT1 & GT2) are subject to 45CSR2. However, the turbines are not indirect heat exchangers and by definition are not fuel burning units. The turbines use the combustion gases to turn the turbine blades.
- b. **40 CFR 60 Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984.** Tank T1 was constructed after July 23, 1984, has a capacity >151 m<sup>3</sup>, and the fuel oil it stores has a true maximum vapor pressure less than 3.5 kilopascals. Therefore pursuant to 40 CFR §60.110b(b), tank T1 is exempt from this subpart.

- c. **40 CFR 60 Subpart KKKK** – *Standards of Performance for Stationary Combustion Turbines*. The combustion turbines were constructed prior to February 18, 2005 and therefore they are not subject to this rule.
- d. **40 CFR Part 64** - *Compliance Assurance Monitoring*. The only potential PSEU applicable to turbines GT1 and GT2 is for nitrogen oxide (NO<sub>x</sub>). NO<sub>x</sub> is the only pollutant from the turbines for which there are emission controls. The NO<sub>x</sub> controls for the turbines while burning natural gas are inherent to the design and operation of the turbines. Water injection is used to control NO<sub>x</sub> whenever fuel oil is fired in the turbines. NO<sub>x</sub> continuous emission monitors (CEMS) are specified in the original Title V permit in order to monitor NO<sub>x</sub> emissions thus satisfying the exemption of 40 CFR§64.2(b)(vi). The facility is also subject to the Acid Rain Program requirements and therefore also meets the exemption of 40 CFR§64.2(b)(iii).

### **Request for Variances or Alternatives**

None.

### **Insignificant Activities**

Insignificant emission unit(s) and activities are identified in the Title V application.

### **Comment Period**

Beginning Date:	October 8, 2014
Ending Date:	November 7, 2014

### **Point of Contact**

All written comments should be addressed to the following individual and office:

Frederick Tipane  
West Virginia Department of Environmental Protection  
Division of Air Quality  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304  
Phone: 304/926-0499 ext. 1215 • Fax: 304/926-0478  
frederick.tipane@wv.gov

### **Procedure for Requesting Public Hearing**

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

### **Response to Comments (Statement of Basis)**

Not applicable.